



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 116201

**TO: Nita M Minnifield
Location: REM-3C18
Art Unit: 1645
Monday, March 08, 2004**

Case Serial Number: 09/056019

**From: Barb O'Bryen
Location: Biotech-Chem Library
Remsen E01A69
Phone: 571-272-2518** *SOB*

barbara.obryen@uspto.gov

Search Notes

STIC-Biotech/ChemLib

116201

From: Chan, Christina
Sent: Monday, March 08, 2004 8:37 AM
To: Minnifield, Nita; Pak, Michael; STIC-Biotech/ChemLib
Subject: RE: rush sequence search request

Please rush. Thanks Chris

Chris Chan

TC 1600 New Hire Training Coordinator and SPE 1644
(571)-272-0841
Remsen, 3E89

-----Original Message-----

From: Minnifield, Nita
Sent: Sunday, March 07, 2004 10:43 AM
To: Chan, Christina
Subject: rush sequence search request

Christina, please approve, 2 month overdue amdt.

STIC

09/056019

Please do commercial and interference sequence search on SEQ ID NO: 1, 3-5, 7, 9-11, 22-24 (all amino acid sequences).

Please provide a paper copy of results.

Transferred case

Thanks,
Nita M. Minnifield

Searcher: _____
Phone: _____
Location: _____
Date Picked Up: _____
Date Completed: _____
Searcher Prep/Review: _____
Clerical: _____
Online time: _____

TYPE OF SEARCH:
NA Sequences: _____
AA Sequences: _____
Structures: _____
Bibliographic: _____
Litigation: _____
Full text: _____
Patent Family: _____
Other: _____

VENDOR/COST (where applic.)
STN: _____
DIALOG: _____
Questel/Orbit: _____
DRLink: _____
Lexis/Nexis: _____
Sequence Sys.: _____
WWW/Internet: _____
Other (specify): _____

Art Unit 1645
Office REM-3C01
Mailbox REM-3C18
571-272-0860

Searcher: _____
Phone: _____
Location: _____
Date Picked Up: _____
Date Completed: _____
Searcher Prep/Review: _____
Clerical: _____
Online time: _____

TYPE OF SEARCH:
NA Sequences: _____
AA Sequences: _____
Structures: _____
Bibliographic: _____
Litigation: _____
Full text: _____
Patent Family: _____
Other: _____

VENDOR/COST (where applic.)
STN: _____
DIALOG: _____
Questel/Orbit: _____
DRLink: _____
Lexis/Nexis: _____
Sequence Sys.: _____
WWW/Internet: _____
Other (specify): _____


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KW Signal. 1 37 POTENTIAL.
FT CHAIN 38 523 POTENTIAL.
SQ SEQUENCE 523 AA; 59151 MW; B3390DF8A706465A CRC64;

Query Match
Best Local Similarity 59.8%; Score 836; DB 2; Length 523;
Matches 182; Conservative 39; Mismatches 54; Indels 18; Gaps 3;

QY 1 ENEGATQVPTSSNRANESQAEGQPKLDSERDKARKEVEYVKIVGESYAKSTKKRH 60
DB 39 ENEGTQATFNNANKSQTEQGE---INIERDKAKTAVSEYKEKVSITYTKLERDRH 94
QY 61 TITVALVNLNKKNEYLKIVESTSESQQLIMMESRSKYDVAESKPEKSSSSSSSDS 120
DB 95 KDTVLVNLKQIKNEYLKIVQSTSKTEIQGLITTSKLDVAESKYKAPSSSSSSGS 154
QY 121 STKPEASDTAKPNKTEPEGEKVAEAKKVEAEKKAQKQKEDRNRNYTITYKTLELEIA 180
DB 155 STKPEASDTAKPNKTEPEGEKVAEAKKVEAEKKAQKQKEDRNRNYTITYKTLELEIA 214
QY 181 ESDVEVKAELELVKANEPRDEOKIKOAEAEVESKQAEATRLAKIKTDRREAEER 240
DB 215 ESDVEVKAELELVKANEPRDEOKIKOAEAEVESKQAEATRLAKIKTDRREAEER 274
QY 241 RADAEKQPKGRKRGVGEGLA-----TPKKENDAKSSDSSVG 280
DB 275 KAAEDKVKKEK-PAEQQAEDYARRSEERYNLTQQQPPKTEKPAQSPPTKTG 326

RESULT 12
Q9KK38 PRELIMINARY; PRT; 709 AA.
AC Q9KK38;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Surface protein PspC.
GN P8PC.
OS Streptococcus pneumoniae.
OC Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=1313;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=g387;
RA Tannelli F., Oggioni M.R., Pozzi G.;
RT "Allelic Variation in the Highly Polymorphic Locus pspC of Streptococcus pneumoniae."
RL Submitted (MAY-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF154021; AAF73790.1; -
DR GO; GO:0016020; C:membrane; IEA.
DR InterPro; IPR002479; CW binding.
DR InterPro; IPR005877; GpGc YSIRK.
DR InterPro; IPR007756; RICH.
DR InterPro; IPR005533; Tropomyosin.
DR Pfam; PF01473; CW binding_1; 9.
DR Pfam; PF05062; RICH; 1.
DR Pfam; PF04650; YSIRK signal; 1.
DR PRINTS; PR00194; TROPOMYOSIN.
DR TIGRfams; TIGR01168; YSIRK signal; 1.
SQ SEQUENCE 709 AA; 80251 MW; 32BEC96E380EBB7A CRC64;

Query Match
Best Local Similarity 56.5%; Score 790; DB 2; Length 709;
Matches 175; Conservative 38; Mismatches 38; Indels 48; Gaps 6;

QY 9 PTSSNRANESQ-----AQGEQPKLDSERDKARKEVEYVKIVGESYAKSTKKRHTI 62
DB 48 PCSSSANKSQTEHMAKACGQKHREIDLRNKAKAIDEYIERKLSE--IQDGRKHTQ 105
QY 63 TVALVNLNKKNEYLKIVESTSESQQLIMMESRSKYDVAESKPEKSSSSSS 117
DB 117 TVALVNLNKKNEYLKIVESTSESQQLIMMESRSKYDVAESKPEKSSSSSS 117

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DB 106 NPAIANKLSRIKTEYLGIVLKEKSEAEPLSPKAEPLSKIKELTAAPFHKQDT----- 160
QY 119 SDSSTKPEASDTAKPNKTEPEGEKVAEAKKVEAEKKAQKQKEDRNRNYTITYKTLEL 177
DB 161 -----LRPEGEKVAEAKKVEAEKKAQKQKEDRNRNYTITYKTLEL 202
QY 178 EIAESDVEVKAELELVKANEPRDEOKIKOAEAEVESKQAEATRLAKIKTDRREAEER 237
DB 203 EIAESDVEVKAELELVKANEPRDEOKIKOAEAEVESKQAEATRLAKIKTDRREAEER 262
QY 238 AKRRADAK-----EQGPKGRKRGVGEGLATPKKENDAKSSDSSVGEETL 284
DB 263 AKRRAEAKLKEAVEKNTATSEQGPKGRKRGVGEGLATPKKENDAKSSDSSVGEETL 321

RESULT 13
Q9KK16 PRELIMINARY; PRT; 681 AA.
AC Q9KK16;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Surface protein PspC.
GN P8PC.
OS Streptococcus pneumoniae.
OC Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=1313;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=srf25;
RA Tannelli F., Oggioni M.R., Pozzi G.;
RT "Allelic Variation in the Highly Polymorphic Locus pspC of Streptococcus pneumoniae."
RL Submitted (MAY-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF154040; AAF73812.1; -
DR GO; GO:0016020; C:membrane; IEA.
DR InterPro; IPR002479; CW binding.
DR InterPro; IPR005877; GpGc YSIRK.
DR InterPro; IPR007756; RICH.
DR Pfam; PF01473; CW binding_1; 7.
DR Pfam; PF05062; RICH; 1.
DR Pfam; PF04650; YSIRK signal; 1.
DR TIGRfams; TIGR01168; YSIRK signal; 1.
SQ SEQUENCE 681 AA; 76728 MW; 38FE4782653D51A8 CRC64;

Query Match
Best Local Similarity 54.6%; Score 763; DB 2; Length 681;
Matches 170; Conservative 35; Mismatches 41; Indels 50; Gaps 5;

QY 1 ENEGATQVPTSSNRANESQAEGQPKLDSERDKARKEVEYVKIVGESYAKSTKKRH 60
DB 39 EKEVTTQVPTSSNRANKSQ-----TEHMAAKQVDVEYIKKL-----QLDRKX 82
QY 61 TITVALVNLNKKNEYLKIVESTSESQQLIMMESRSKYDVAESKPEKSSSSSSSDS 120
DB 83 TQNVGLLTGLKVIKTEYILHLSVSKSESEAB-LPSEVKAKLDAFAPEQPKDT----- 133
QY 121 STKPEASDTAKPNKTEPEGEKVAEAKKVEAEKKAQKQKEDRNRNYTITYKTLELEIA 180
DB 134 -----LFTPEGKVAEAKKVEAEKKAQKQKEDRNRNYTITYKTLELEIA 180
QY 181 ESDVEVKAELELVKANEPRDEOKIKOAEAEVESKQAEATRLAKIKTDRREAEER 240
DB 181 ESDVEVKAELELVKGGGYPDEOKVQAKAVESKQAEATRLAKIKTDRREAEER 240
QY 241 RADAK-----EQGPKGRKRGVGEGLATPKKENDAKSSDSSVGEETL 284
DB 241 RAEAKLKEAVEKNTATSEQGPKGRKRGVGEGLATPKKENDAKSSDSSVGEETL 296

RESULT 14
Q9ROT3

```

TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8504
TELEFAX: (301) 309-8512
INFORMATION FOR SEQ ID NO: 38:
SEQUENCE CHARACTERISTICS:
LENGTH: 453 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-961-083-38

Query Match 81.5%; Score 433; DB 3; Length 453;
Best Local Similarity 82.1%; Pred. No. 5.3e-33;
Matches 87; Conservative 15; Mismatches 4; Indels 0; Gaps 0;

QY 2 EPGEKVAEAKKVEAEKAKQKEDRRNYPTTYKTLELEIAESDVVKAELELVKY 61
DB 88 KPEKVAEAKKVEAEKAKQKEDRRNYPTTYKTLELEIAESDVVKAELELVKE 147
QY 62 KANEPRDEQIKQAEAEVESKQAEATRLKKIKTDRREAEAEAKRA 107
DB 148 EAKEPRNEEKVQKAEAEVESKQAEATRLKKIKTDRKAEAEAKRA 193

RESULT 10

US-09-536-784-38
Sequence 38, Application US/09536784
Patent No. 6573082
GENERAL INFORMATION:

APPLICANT: Choi et. al.
TITLE OF INVENTION: Streptococcus pneumoniae Antigens and Vaccines
NUMBER OF SEQUENCES: 452
CORRESPONDENCE ADDRESS:
ADDRESSEE: Human Genome Sciences, Inc.
STREET: 9410 Key West Avenue
CITY: Rockville
STATE: Maryland
COUNTRY: USA
ZIP: 20850

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
COMPUTER: HP Vectra 486/33
OPERATING SYSTEM: MSDOS version 6.2
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/536,784
FILING DATE: 30-Oct-1997
CLASSIFICATION: <unknown>

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/961,083
FILING DATE: OCT-30-1997
ATTORNEY/AGENT INFORMATION:
NAME: Michelle S. Marks
REGISTRATION NUMBER: 41,971
REFERENCE/DOCKET NUMBER: PB340P3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8504
TELEFAX: (301) 309-8512

INFORMATION FOR SEQ ID NO: 38:
SEQUENCE CHARACTERISTICS:
LENGTH: 453 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-536-784-38

Query Match 81.5%; Score 433; DB 4; Length 453;
Best Local Similarity 82.1%; Pred. No. 5.3e-33;
Matches 87; Conservative 15; Mismatches 4; Indels 0; Gaps 0;

QY 2 EPGEKVAEAKKVEAEKAKQKEDRRNYPTTYKTLELEIAESDVVKAELELVKY 61
DB 88 KPEKVAEAKKVEAEKAKQKEDRRNYPTTYKTLELEIAESDVVKAELELVKE 147
QY 62 KANEPRDEQIKQAEAEVESKQAEATRLKKIKTDRREAEAEAKRA 107
DB 148 EAKEPRNEEKVQKAEAEVESKQAEATRLKKIKTDRKAEAEAKRA 193

RESULT 11

US-08-714-741-40
Sequence 40, Application US/08714741
Patent No. 6500613
GENERAL INFORMATION:

APPLICANT: Briles, David E.
APPLICANT: McDaniel, Larry S.
APPLICANT: Swiatlo, Edwin
APPLICANT: Yother, Janet
APPLICANT: Crain, Marilyn J.
APPLICANT: Hollingshead, Susan
APPLICANT: Tart, Rebecca
APPLICANT: Brooks-Walter, Alexis
TITLE OF INVENTION: PNEUMOCOCCAL GENES, PORTIONS THEREOF,
TITLE OF INVENTION: EXPRESSION PRODUCTS THEREFROM, AND USES OF SUCH GENES,
TITLE OF INVENTION: PORTIONS AND PRODUCTS
NUMBER OF SEQUENCES: 47
CORRESPONDENCE ADDRESS:
ADDRESSEE: Curtis, Morris & Safford, P.C.
STREET: 530 Fifth Avenue
CITY: New York
STATE: New York
COUNTRY: U.S.
ZIP: 10036

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/714,741
FILING DATE: 16-SEP-1996
CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: Frommer Esq., William S.
REGISTRATION NUMBER: 25,506
REFERENCE/DOCKET NUMBER: 454312-2460
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 840-3333
TELEFAX: (212) 840-0712

INFORMATION FOR SEQ ID NO: 40:
SEQUENCE CHARACTERISTICS:
LENGTH: 864 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: amino acid
US-08-714-741-40

Query Match 81.5%; Score 433; DB 4; Length 864;
Best Local Similarity 86.7%; Pred. No. 1.1e-32;
Matches 91; Conservative 8; Mismatches 2; Indels 4; Gaps 1;

QY 5 EKVAEAKKVEAEKAKQKEDRRNYPTTYKTLELEIAESDVVKAELELVKYKAN 64
DB 78 KVAEAKKVEAEKAKQKEDRRNYPTTYKTLELEIAESDVVKAELELVKAK 137
QY 65 EPDEQIKQAEAEVESKQAEATRLKKIKTDRREAEAEAKRA 109
DB 138 ESDEEKIKQAEAEVESKQAEATRLKKIKTDR---EAKAKRA 178

RESULT 12

US-09-286-981B-10

```

; TOPOLOGY: linear
; MOLECULE TYPE: amino acid
US-08-714-741-46

Query Match      64.3%; Score 805; DB 4; Length 605;
Best Local Similarity 56.7%; Pred. No. 8.4e-56;
Matches 190; Conservative 11; Mismatches 28; Indels 106; Gaps 5;

QY      15 AKTEHRAAKAAQVDEYIEKMLSEIOLDERRKTONVALNIKLSAIKTYLRLNVL-----69
DB      47 AKTEHRAAKAAQVDEYIEKMLSEIOLDERRKTONVALNIKLSAIKTYLRLNVLKENS106
QY      70 -----EKSXDELPSKAK 84
DB      107 KEELTSKTAELTAAPEQFKDTLPEKKVAEAEKVEEAEELVXEKSKXELPSKAK 166
QY      85 LDAAFEPKFKDTLKGEKVYABAKKVEAKKAEADQKEEDRRNPTNTYKTLSELTAEPD 144
DB      167 LDAAFKFKDTLKGEKVYABAKKVEAKKAEADQKEEDRRNPTNTYKTLSELTAEPD 226
QY      145 VKYEAELVKEEAKES-----162
DB      227 VKYEAELVKEEAKESKXAKXQKEDRRNPTNTKTLDEIAEXDVVKKEAELEL 286
QY      163 -----RNEGTTKQAEKVESKAEATRLNKTOKKAEBAKKAADAKLKEANVAT 214
DB      287 VKEEAEXRNEEKIKQAEKVESKAEATRLNKTOKKAEBAKKAADAKLKEANVAT 344
QY      215 SDQCKPKGRAGKVPGEATPDKEN---DAKSSD 246
DB      345 ADEBKIK-QAKAKVESKAEATRLNKTOKKAEBAKKAADAKLKEANVAT 378

RESULT 15
US-08-714-741-40
; Sequence 40, Application US/08714741
; Patent No. 6500613
; GENERAL INFORMATION:
; APPLICANT: Briles, David E.
; APPLICANT: McDaniel, Larry S.
; APPLICANT: Swiatlo, Edwin
; APPLICANT: Yotter, Janet
; APPLICANT: Crain, Marilyn J.
; APPLICANT: Hollingshead, Susan
; APPLICANT: Tart, Rebecca
; APPLICANT: Brooks-Walter, Alexis
; TITLE OF INVENTION: PNEUMOCOCCAL GENES, PORTIONS THEREOF,
; TITLE OF INVENTION: EXPRESSION PRODUCTS THEREFROM, AND USES OF SUCH GENES
; TITLE OF INVENTION: PORTIONS AND PRODUCTS
; NUMBER OF SEQUENCES: 47
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford, P.C.
; STREET: 530 Fifth Avenue
; City: New York
; STATE: New York
; COUNTRY: U.S.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/714,741
; FILING DATE: 16-SEP-1996
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer Esq., William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454312-2460
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712

```

; INFORMATION FOR SEQ ID NO: 40:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 864 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: amino acid
 ; US-08-714-741-40

Query Match 61.6%; Score 770; DB 4; Length 864;
 Best Local Similarity 67.0%; Pred. No. 7.5e-53;
 Matches 177; Conservative 18; Mismatches 39; Indels 30; Gaps 5;

Qy	6	TOAATSSNMA---KTEHRKAQKQVVDYIEIKMLREIQIDRRKKTQNVNLIKLSAIKTKY 62
Db	229	TLFSPSLNMANESQTEHRKD-----VDEYIKKMLSEIQIDRRKKTQNVNLIKLSAIKTKY 284
Qy	63	LRELNVLEERS-XDELPSEIKAKLDAAFKFKDQTLKPGKVAEAKKKVEEAKKKAEDOK 121
Db	285	LYELSVLKENSKEELTSKTAELTAAPFQKQTLKPEKKVAEAKKKVEEAKKKAEDOK 344
Qy	122	EEDRNPTNTYKTELELEIAEFQVVKVKAELVYKEAKESRNEGTVKQAKKVESKKAE 181
Db	345	EEDRNPTNTYKTELELEIAESDVVKVKAELVYKEAKESRNEEKIKQAKKVESKKAE 404
Qy	182	ATRLNKTDRKKAEEAKKADAKLKEANVATSDQKPKGRAKRGVPGELATPDYK--- 238
Db	405	ATRLKIKTRKKAEEAKKAESEKKA-----AEAKQKVDAAEVALEAKIAE 453
Qy	239	-----ENDAKSSDSVGEETL 254
Db	454	LEYEVQSLKELKEIDSDSEDYL 477

Search completed: March 8, 2004, 12:37:48
 Job time : 11.7102 secs

RESULT 12
US-09-536-784-38
; Sequence 38, Application US/09536784
; Patent No. 6573082
; GENERAL INFORMATION:
; APPLICANT: Choi et. al.
; TITLE OF INVENTION: Streptococcus pneumoniae Antigens and Vaccines
; NUMBER OF SEQUENCES: 452
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.44M storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/536,784
; FILING DATE: 30-Oct-1997
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/961,083
; FILING DATE: OCT-30-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Michelle S. Marks
; REGISTRATION NUMBER: 41,971
; REFERENCE/DOCKET NUMBER: PB340P3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (301) 309-8504
; TELEFAX: (301) 309-8512
; INFORMATION FOR SEQ ID NO: 38:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 453 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-536-784-38
Query Match 30.5%; Score 468; DB 4; Length 453;
Best Local Similarity 89.6%; Pred. No. 1.7e-35;
Matches 95; Conservative 8; Mismatches 3; Indels 0; Gaps 0;
Qy 1 KSGKVAEAEKKVVEAEKKAKQKEDRRNYPNTYKTLDLIAESDVVKAELELYKE 60
Db 88 KPEKVAEAEKKVVEAEKKAKQKEDRRNYPNTYKTLDLIAESDVVKAELELYKE 147
Qy 61 EAKEPRDEKIKQAKVSKAEATRLNITDKKAEFEAKRKA 106
Db 148 EAKEPRNEEKVKQAKAEVSKAEATRLNITDKKAEFEAKRKA 193
RESULT 13
US-08-714-741-42
; Sequence 42, Application US/08714741
; Patent No. 6500613
; GENERAL INFORMATION:
; APPLICANT: Briles, David E.
; APPLICANT: McDaniel, Larry S.
; APPLICANT: Swiatlo, Edwin
; APPLICANT: Yother, Janet
; APPLICANT: Crain, Marilyn J.
; APPLICANT: Hollingshead, Susan
; APPLICANT: Tart, Rebecca
; TITLE OF INVENTION: PNEUMOCOCCAL GENES, PORTIONS THEREOF.
; TITLE OF INVENTION: EXPRESSION PRODUCTS THEREFROM, AND USES OF SUCH GENES,
; TITLE OF INVENTION: PORTIONS AND PRODUCTS
; NUMBER OF SEQUENCES: 47
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtiss, Morris & Safford, P.C.
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: New York
; COUNTRY: U.S.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible

NUMBER OF SEQUENCES: 47
CORRESPONDENCE ADDRESS:
ADDRESSEE: Curtiss, Morris & Safford, P.C.
STREET: 530 Fifth Avenue
CITY: New York
STATE: New York
COUNTRY: U.S.
ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/714,741
FILING DATE: 16-SEP-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Frommer Esq., William S.
REGISTRATION NUMBER: 25,506
REFERENCE/DOCKET NUMBER: 454312-2460
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 840-3333
TELEFAX: (212) 840-0712
INFORMATION FOR SEQ ID NO: 42:
SEQUENCE CHARACTERISTICS:
LENGTH: 588 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: amino acid
US-08-714-741-42
Query Match 90.3%; Score 467; DB 4; Length 588;
Best Local Similarity 91.5%; Pred. No. 2.8e-35;
Matches 97; Conservative 3; Mismatches 6; Indels 0; Gaps 0;
Qy 1 KSGKVAEAEKKVVEAEKKAKQKEDRRNYPNTYKTLDLIAESDVVKAELELYKE 60
Db 348 KPEKVAEAEKKVVEAEKKAKQKEDRRNYPNTYKTLDLIAESDVVKAELELYKE 407
Qy 61 EAKEPRDEKIKQAKVSKAEATRLNITDKKAEFEAKRKA 106
Db 408 EANESNEEKIKQAKVSKAEATRLNITDKKAEFEAKRKA 453
RESULT 14
US-08-714-741-40
; Sequence 40, Application US/08714741
; Patent No. 6500613
; GENERAL INFORMATION:
; APPLICANT: Briles, David E.
; APPLICANT: McDaniel, Larry S.
; APPLICANT: Swiatlo, Edwin
; APPLICANT: Yother, Janet
; APPLICANT: Crain, Marilyn J.
; APPLICANT: Hollingshead, Susan
; APPLICANT: Tart, Rebecca
; TITLE OF INVENTION: PNEUMOCOCCAL GENES, PORTIONS THEREOF.
; TITLE OF INVENTION: EXPRESSION PRODUCTS THEREFROM, AND USES OF SUCH GENES,
; TITLE OF INVENTION: PORTIONS AND PRODUCTS
; NUMBER OF SEQUENCES: 47
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtiss, Morris & Safford, P.C.
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: New York
; COUNTRY: U.S.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible

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;; OPERATING SYSTEM: PC-DOS/MS-DOS
;; SOFTWARE: PatentIn Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/08/714,741
;; FILING DATE: 16-SEP-1996
;; CLASSIFICATION: 435
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Frommer Esq, William S.
;; REGISTRATION NUMBER: 25,506
;; REFERENCE/DOCKET NUMBER: 454312-2460
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: (212) 840-3333
;; TELEFAX: (212) 840-0712
;; INFORMATION FOR SEQ ID NO: 40:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 864 amino acids
;; TYPE: amino acid
;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: amino acid
US-08-714-741-40

Query Match          90.3%; Score 467; DB 4; Length 864;
Best Local Similarity 91.5%; Pred. No. 4.3e-35;
Matches 97; Conservative 3; Mismatches 6; Indels 0; Gaps 0;

Qy 1 KSGKKVAEAEKKVEAEKKAKQKQEDRRNYPNTYKTLDEIAESDVKKVKEAELELVKE 60
Db 321 KPEKKVAEAEKKVEAEKKAKQKQEDRRNYPNTYKTLDEIAESDVKKVKEAELELVKE 380

Qy 61 EAKSPDEEIKQAKAKVESKKAATRLNLIKTDKKAEAEAKKA 106
Db 381 EANSRNEEKIQAKAKVESKKAATRLNLIKTDKKAEAEAKKA 426

RESULT 15
US-09-286-981B-1
; Sequence 1, Application US/09286981B
; Patent No. 6503511
; GENERAL INFORMATION:
; APPLICANT: Wizemann, Theresa M.
; APPLICANT: Koenig, Scott
; APPLICANT: Johnson, Leslie S
; TITLE OF INVENTION: Derivatives of Choline Binding Proteins for Vaccines
; FILE REFERENCE: 469201-396
; CURRENT APPLICATION NUMBER: US/09/286,981B
; CURRENT FILING DATE: 1999-04-06
; PRIOR APPLICATION NUMBER: US 60/085,743
; PRIOR FILING DATE: 1998-05-15
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 103
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-09-286-981B-1

Query Match          89.6%; Score 463; DB 4; Length 103;
Best Local Similarity 92.2%; Pred. No. 8.9e-36;
Matches 95; Conservative 6; Mismatches 2; Indels 0; Gaps 0;

Qy 4 KKVAEAEKKVEAEKKAKQKQEDRRNYPNTYKTLDEIAESDVKKVKEAELELVKEAK 63
Db 1 KKVAEAEKKVEAEKKAKQKQEDRRNYPNTYKTLDEIAESDVKKVKEAELELVKEAK 60

Qy 64 EPRDEEIKQAKAKVESKKAATRLNLIKTDKKAEAEAKKA 106
Db 61 ESRNEEKIQAKAKVESKKAATRLNLIKTDKKAEAEAKKA 103
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Search completed: March 8, 2004, 12:37:49
Time: 5.46962 secs

US-09-286-981B-4
; Sequence 4, Application US/09286981B
; Patent No. 6503511
; GENERAL INFORMATION:
; APPLICANT: Wismann, Theresa M.
; APPLICANT: Koenig, Scott
; APPLICANT: Johnson, Leslie S
; TITLE OF INVENTION: Derivatives of Choline Binding Proteins for Vaccines
; FILE REFERENCE: 469201-396
; CURRENT APPLICATION NUMBER: US/09/286,981B
; PRIOR FILING DATE: 1999-04-06
; PRIOR APPLICATION NUMBER: US 60/085,743
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 4
; LENGTH: 251
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-09-286-981B-4

Query Match 98.1%; Score 515; DB 4; Length 251;
Best Local Similarity 100.0%; Pred. No. 7.3e-40;
Matches 105; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 PGEKVAEAKKKVEEAKKKAEDQKEDRRNYPNTYKTLLEIAEFDVKVKEAELELVKEE 60
Db 100 PGEKVAEAKKKVEEAKKKAEDQKEDRRNYPNTYKTLLEIAEFDVKVKEAELELVKEE 159

QY 61 AKESRNEGTIKQAEKVSKKAEATRLNIKTDKKAEAEAKRKA 105
Db 160 AKESRNEGTIKQAEKVSKKAEATRLNIKTDKKAEAEAKRKA 204

RESULT 6
US-08-714-741-42
; Sequence 42, Application US/08714741
; Patent No. 6500613
; GENERAL INFORMATION:
; APPLICANT: Briles, David E.
; APPLICANT: McDaniel, Larry S.
; APPLICANT: Swiatlo, Edwin
; APPLICANT: Yother, Janet
; APPLICANT: Crain, Marilyn J.
; APPLICANT: Hollingshead, Susan
; APPLICANT: Tart, Rebecca
; APPLICANT: Brooks-Walter, Alexis
; TITLE OF INVENTION: PNEUMOCOCCAL GENES, PORTIONS THEREOF,
; TITLE OF INVENTION: EXPRESSION PRODUCTS THEREFROM, AND USES OF SUCH GENES,
; TITLE OF INVENTION: PORTIONS AND PRODUCTS
; NUMBER OF SEQUENCES: 47
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford, P.C.
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: New York
; COUNTRY: U.S.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/714,741
; FILING DATE: 16-SEP-1996
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer Esq., William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454312-2460
; TELEPHONE: (212) 840-3333
; INFORMATION FOR SEQ ID NO: 40:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 864 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: amino acid
US-08-714-741-40

TELEFAX: (212) 840-0712
; INFORMATION FOR SEQ ID NO: 42:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 588 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: amino acid
US-08-714-741-42

Query Match 88.4%; Score 464; DB 4; Length 588;
Best Local Similarity 90.6%; Pred. No. 8.9e-35;
Matches 96; Conservative 4; Mismatches 6; Indels 0; Gaps 0;

QY 1 PGEKVAEAKKKVEEAKKKAEDQKEDRRNYPNTYKTLLEIAEFDVKVKEAELELVKEE 60
Db 349 PEKVAEAEKVEEAKKKAEDQKEDRRNYPNTYKTLLEIAEFDVKVKEAELELVKEE 408

QY 61 AKESRNEGTIKQAEKVSKKAEATRLNIKTDKKAEAEAKRKA 106
Db 409 ANESRNEEKIKQAEKVSKKAEATRLNIKTDKKAEAEAKRKA 454

RESULT 7
US-08-714-741-40
; Sequence 40, Application US/08714741
; Patent No. 6500613
; GENERAL INFORMATION:
; APPLICANT: Briles, David E.
; APPLICANT: McDaniel, Larry S.
; APPLICANT: Swiatlo, Edwin
; APPLICANT: Yother, Janet
; APPLICANT: Crain, Marilyn J.
; APPLICANT: Hollingshead, Susan
; APPLICANT: Tart, Rebecca
; APPLICANT: Brooks-Walter, Alexis
; TITLE OF INVENTION: PNEUMOCOCCAL GENES, PORTIONS THEREOF,
; TITLE OF INVENTION: EXPRESSION PRODUCTS THEREFROM, AND USES OF SUCH GENES,
; TITLE OF INVENTION: PORTIONS AND PRODUCTS
; NUMBER OF SEQUENCES: 47
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford, P.C.
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: New York
; COUNTRY: U.S.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/714,741
; FILING DATE: 16-SEP-1996
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer Esq., William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454312-2460
; TELEPHONE: (212) 840-3333
; INFORMATION FOR SEQ ID NO: 40:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 864 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: amino acid
US-08-714-741-40

Query Match 88.4%; Score 464; DB 4; Length 864;

Best Local Similarity 90.6%; Pred. No. 1.4e-34; Indels 0; Gaps 0;
Matches 96; Conservative 4; Mismatches 6;
2y 1 PGKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 60
Db 322 PGKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 381
Qy *61 AKESRNEGTTIKOAKKESKKAETRLNKTDRKKAEEAKRKA 106
Db 382 AVESRNEETIKOAKKESKKAETRLNKTDRKKAEEAKRKA 427

RESULT 8

US-09-286-981B-15
; Sequence 15, Application US/09286981B

; Patent No. 6503511

; GENERAL INFORMATION:

; APPLICANT: Wizemann, Theresa M.

; APPLICANT: Koenig, Scott

; APPLICANT: Johnson, Leslie S

; TITLE OF INVENTION: Derivatives of Choline Binding Proteins for Vaccines

; FILE REFERENCE: 469201-396

; CURRENT APPLICATION NUMBER: US/09/286,981B

; PRIOR FILING DATE: 1999-04-06

; PRIOR APPLICATION NUMBER: US 60/085,743

; NUMBER OF SEQ ID NOS: 38

; SOFTWARE: Patent in Ver. 2.1

; SEQ ID NO 15

; LENGTH: 419

; TYPE: PRT

; ORGANISM: Streptococcus pneumoniae

US-09-286-981B-15

Query Match 86.7%; Score 455; DB 4; Length 419;
Best Local Similarity 90.5%; Pred. No. 4e-34; Indels 0; Gaps 0;
Matches 95; Conservative 3; Mismatches 7;

Qy 1 PGKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 60
Db 259 PGKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 318
Qy 61 AKESRNEGTTIKOAKKESKKAETRLNKTDRKKAEEAKRKA 105
Db 319 AKESRNEETIKOAKKESKKAETRLNKTDRKKAEEAKRKA 363

RESULT 9

US-09-286-981B-1
; Sequence 1, Application US/09286981B

; Patent No. 6503511

; GENERAL INFORMATION:

; APPLICANT: Wizemann, Theresa M.

; APPLICANT: Koenig, Scott

; APPLICANT: Johnson, Leslie S

; TITLE OF INVENTION: Derivatives of Choline Binding Proteins for Vaccines

; FILE REFERENCE: 469201-396

; CURRENT APPLICATION NUMBER: US/09/286,981B

; PRIOR FILING DATE: 1999-04-06

; PRIOR APPLICATION NUMBER: US 60/085,743

; NUMBER OF SEQ ID NOS: 38

; SOFTWARE: Patent in Ver. 2.1

; SEQ ID NO 1

; LENGTH: 103

; TYPE: PRT

; ORGANISM: Streptococcus pneumoniae

US-09-286-981B-1

Query Match 86.1%; Score 452; DB 4; Length 103;
Best Local Similarity 91.3%; Pred. No. 1.5e-34; Indels 0; Gaps 0;
Matches 94; Conservative 4; Mismatches 5;

Qy 3 EKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 62
Db 1 KKVAAEKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 60
Qy 63 ESRNEGTTIKOAKKESKKAETRLNKTDRKKAEEAKRKA 105
Db 61 ESRNEETIKOAKKESKKAETRLNKTDRKKAEEAKRKA 103

RESULT 10

US-09-286-981B-19
; Sequence 19, Application US/09286981B

; Patent No. 6503511

; GENERAL INFORMATION:

; APPLICANT: Wizemann, Theresa M.

; APPLICANT: Koenig, Scott

; APPLICANT: Johnson, Leslie S

; TITLE OF INVENTION: Derivatives of Choline Binding Proteins for Vaccines

; FILE REFERENCE: 469201-396

; CURRENT APPLICATION NUMBER: US/09/286,981B

; PRIOR FILING DATE: 1999-04-06

; PRIOR APPLICATION NUMBER: US 60/085,743

; NUMBER OF SEQ ID NOS: 38

; SOFTWARE: Patent in Ver. 2.1

; SEQ ID NO 19

; LENGTH: 114

; TYPE: PRT

; ORGANISM: Streptococcus pneumoniae

US-09-286-981B-19

Query Match 86.1%; Score 452; DB 4; Length 114;
Best Local Similarity 91.3%; Pred. No. 1.7e-34; Indels 0; Gaps 0;
Matches 94; Conservative 4; Mismatches 5;

Qy 3 EKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 62
Db 1 KKVAAEKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 60
Qy 63 ESRNEGTTIKOAKKESKKAETRLNKTDRKKAEEAKRKA 105
Db 61 ESRNEETIKOAKKESKKAETRLNKTDRKKAEEAKRKA 103

RESULT 11

US-09-286-981B-7
; Sequence 7, Application US/09286981B

; Patent No. 6503511

; GENERAL INFORMATION:

; APPLICANT: Wizemann, Theresa M.

; APPLICANT: Koenig, Scott

; APPLICANT: Johnson, Leslie S

; TITLE OF INVENTION: Derivatives of Choline Binding Proteins for Vaccines

; FILE REFERENCE: 469201-396

; CURRENT APPLICATION NUMBER: US/09/286,981B

; PRIOR FILING DATE: 1999-04-06

; PRIOR APPLICATION NUMBER: US 60/085,743

; NUMBER OF SEQ ID NOS: 38

; SOFTWARE: Patent in Ver. 2.1

; SEQ ID NO 7

; LENGTH: 428

; TYPE: PRT

; ORGANISM: Streptococcus pneumoniae

US-09-286-981B-7

Query Match 85.5%; Score 449; DB 4; Length 428;
Best Local Similarity 87.6%; Pred. No. 1.4e-33; Indels 0; Gaps 0;
Matches 92; Conservative 7; Mismatches 6;

Qy 1 PGKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 60
Db 267 PGKVAEAKKKVEAKKADQKEDRRNYPNTYKTLSEIAEFDVKVKAELVKEE 326

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OM protein - protein search, using sw model

Run on: March 8, 2004, 12:22:33 ; Search time 5.14427 Seconds
(without alignments)
1224.345 Million cell updates/sec

Title: US-09-056-019B-23

Perfect score: 593
Sequence: 1 PSSSLKSGKKVAEAEKKVEE.....ABEEAKRAAEEDKVKKEKA 122

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Databases : Issued Patents AA:*
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2: /cgn2_6/prodata/2/iaa/5B COMB.pep.*
3: /cgn2_6/prodata/2/iaa/6A COMB.pep.*
4: /cgn2_6/prodata/2/iaa/6B COMB.pep.*
5: /cgn2_6/prodata/2/iaa/PCUTS COMB.pep.*
6: /cgn2_6/prodata/2/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	586	98.8	414	4	US-09-286-981B-16
2	586	98.8	621	3	US-08-847-065-25
3	584	98.5	584	3	US-09-308-022-6
4	574	96.8	414	4	US-09-286-981B-10
5	548	92.4	142	3	US-08-847-065-21
6	542	91.4	419	4	US-09-286-981B-15
7	537	90.6	406	4	US-09-286-981B-18
8	534	90.1	428	4	US-09-286-981B-7
9	532	89.7	446	4	US-09-286-981B-6
10	532	89.7	446	4	US-09-286-981B-9
11	532	89.7	453	3	US-08-961-083-38
12	532	89.7	453	4	US-09-326-784-38
13	526	88.7	413	4	US-09-286-981B-5
14	522	88.0	425	4	US-09-286-981B-11
15	519	87.5	412	4	US-09-286-981B-17
16	510.5	86.1	424	4	US-09-286-981B-14
17	510.5	86.1	425	4	US-09-286-981B-13
18	510.5	86.1	426	4	US-09-286-981B-12
19	509	85.8	114	4	US-09-286-981B-19
20	506	85.3	251	4	US-09-286-981B-4
21	503.5	84.9	431	4	US-09-286-981B-3
22	492	83.0	219	4	US-09-286-981B-8
23	483	81.5	588	4	US-08-714-741-42
24	483	81.5	864	4	US-08-714-741-40
25	463	78.1	103	4	US-09-286-981B-1
26	449.5	75.8	605	4	US-08-714-741-46
27	445	75.0	103	4	US-09-286-981B-38

28 427.5 72.1 1231 4 US-08-714-741-41 Sequence 41, Appl
29 386 65.1 623 4 US-08-714-741-47 Sequence 47, Appl
30 309.5 52.2 131 4 US-08-529-055-56 Sequence 56, Appl
31 309.5 52.2 8991 4 US-08-714-741-32 Sequence 32, Appl
32 291 49.1 110 3 US-08-961-083-102 Sequence 102, Appl
33 291 49.1 110 4 US-09-536-784-102 Sequence 102, Appl
34 202.5 34.1 128 4 US-08-529-055-57 Sequence 57, Appl
35 140 23.6 468 4 US-09-328-352-6321 Sequence 6321, Appl
36 138.5 23.4 1507 3 US-08-329-329-56436 Sequence 56436, Appl
37 129.5 21.8 1180 4 US-09-543-681A-6436 Sequence 6436, Appl
38 128 21.6 611 4 US-09-216-393B-81 Sequence 81, Appl
39 127.5 21.5 288 3 US-08-312-949-4 Sequence 4, Appl
40 127.5 21.5 288 3 US-08-446-201-4 Sequence 4, Appl
41 137.5 21.5 407 4 US-09-252-991A-29581 Sequence 29581, A
42 127.5 21.5 619 1 US-08-465-746-2 Sequence 2, Appl
43 127.5 21.5 619 1 US-08-214-164-2 Sequence 2, Appl
44 127.5 21.5 619 2 US-08-467-852A-3 Sequence 3, Appl
45 127.5 21.5 619 2 US-08-246-636-2 Sequence 2, Appl

ALIGNMENTS

RESULT 1
US-09-286-981B-16
; Sequence 16, Application US/09286981B
; Patent No. 6503511
; GENERAL INFORMATION:
; APPLICANT: Wizenmann, Theresa M.
; APPLICANT: Koenig, Scott
; APPLICANT: Wizenmann, Leslie S
; TITLE OF INVENTION: Derivatives of Choline Binding Proteins for Vaccines
; FILE REFERENCE: 469201-396
; CURRENT APPLICATION NUMBER: US/09/286,981B
; CURRENT FILING DATE: 1999-04-06
; PRIOR APPLICATION NUMBER: US 60/085,743
; PRIOR FILING DATE: 1998-05-15
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
; LENGTH: 414
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-09-286-981B-16

Query Match 98.8%; Score 586; DB 4; Length 414;
Best Local Similarity 99.2%; Pred. No. 6.2e-46;
Matches 121; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 1 PSSSLKSGKKVAEAEKKVEAEKKAKDKQKEEDRRNYPTNTYKTLDLIEIAESDVVKVEAE 60
Db 256 PSSSLKSGKKVAEAEKKVEAEKKAKDKQKEEDRRNYPTNTYKTLDLIEIAESDVVKVEAE 315
Qy 61 ELVKEAEKPRDEKIKQAKVESKKAETATLENIKTDKKAEEAKKAEEKVKKEK 120
Db 316 ELVKEAEKPRDEKIKQAKVESKKAETATLENIKTDKKAEEAKKAEEKVKKEK 375
Qy 121 RA 122
Db 376 PA 377

RESULT 2
US-08-847-065-25
; Sequence 25, Application US/08847065
; Patent No. 6245335
; GENERAL INFORMATION:
; APPLICANT: Masure, H. Robert
; APPLICANT: Rosenow, George I.
; APPLICANT: Tuomanen, Elaine
; APPLICANT: Wizenmann, Theresa M.
; TITLE OF INVENTION: CHOLINE BINDING PROTEINS FOR
; TITLE OF INVENTION: ANTI-PNEUMOCOCCAL VACCINES